

## Proposed ATCM For On-Road Heavy-Duty Diesel-Fueled Commercial Fuel Delivery Trucks

revised 09/04/03 JK

**Please Note:** This draft regulation is an Air Resources Board (ARB) staff proposal. Portions of this regulation may be subject to change, including compliance dates and requirements. ARB staff is soliciting comments on the draft regulation and based upon comments received and further staff analysis, parts or all of the draft regulation may be changed. We are particularly interested in receiving your comments at this time on the concepts presented in this early draft.

Adopt new sections xxxx, xxxx.1, and xxxx.2, title 13, California Code of Regulations, to read as follows: (Note: The entire text of sections xxxx, xxxx.1, and xxxx.2 set forth below is new language proposed to be added to the California Code of Regulations.)

Section XXXX Airborne Toxic Control Measure for Control of Diesel Particulate Matter Emissions from Diesel-fueled Trucks Used for Commercial Fuel Delivery

- (a) **Purpose.** Diesel particulate matter was identified in 1998 as a toxic air contaminant. According to California law, an airborne toxic control measure using best available control technology shall, therefore, be employed to reduce the public's exposure to diesel particulate matter.
- (b) **Applicability.** This section applies to every Diesel-fueled Truck Used for Commercial Fuel Delivery as defined in subsection (c).
- (c) **Definitions.** For purposes of this section, the following definitions apply:
- (1) "Alternative fuel" means the same as in title 13, California Code of Regulations, section 1956.2(b)(1).
  - (2) "ARB" means the California Air Resources Board.
  - (3) "Base Year Emissions Summary" means the sum of diesel particulate matter emissions from all diesel-fueled trucks in a fleet used for commercial fuel delivery and calculated according to the methods described in subsection (d)(2)(B).
  - (4) "Commercial Fuel" means the buying or selling of fuels defined as gasoline, diesel, and ethanol used in whole or in part as a vehicle fuel, aviation fuel, or jet fuel, primarily for profit.

- (5) “Delivery” means the transport, movement, towing, hauling, carrying, relocating, distributing, loading, unloading, providing, and the like of a commercial fuel.
- (6) “Diesel-fueled” means fueled by diesel fuel or CARB diesel fuel in whole or in part, where diesel fuel is any fuel commonly or commercially known, sold, or represented as diesel fuel No. 1-D, 1-D low sulfur, 2-D, 2-D low sulfur, or 4-D pursuant to ASTM specifications in *Standard Specification for Diesel Fuel Oils; D975 – 98*, which is incorporated herein by reference.
- (7) “Diesel-fueled Truck Used for Commercial Fuel Delivery (Fuel Delivery Truck)” means an on-road, heavy-duty, diesel-fueled truck with a manufacturer’s gross vehicle weight rating of greater than 14,000 pounds that for any time during the year is used for the purpose of commercial fuel delivery within, from, and to the State of California.
- (8) “Diesel particulate matter (PM)” means particles found in the exhaust of combustion ignited diesel-fueled engines which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.
- (9) “Executive Officer” means the executive officer of the ARB or his or her designee.
- (10) “Operator” means anyone, other than an owner, who rents, leases, operates, or causes to have operated any Fuel Delivery Truck.
- (11) “Owner” means the same as in title 13, California Code of Regulations, section 2180.1(21).
- (12) “Verified” means that a Diesel Emission Control Strategy has received approval from the Executive Officer according to the *Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines* in title 13, California Code of Regulations, commencing with section 2700, and incorporated herein by reference.
- (13) “Verification Classification Level” means the classification assigned to a Diesel Emission Control Strategy by the Executive Officer as defined in the *Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (13 CCR Sections 2700 – 2710)*. Diesel particulate matter reductions correspond as follows: Level 1 =  $\geq 25$  percent; Level 2 =  $\geq 50$  percent; Level 3 =  $\geq 85$  percent or 0.01 g/hp-hr PM.
- (14) “Verified Diesel Emission Control Strategy” (VDECS) means an emission control strategy designed primarily for the reduction of diesel particulate

matter emissions that has been verified using the *Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (13 CCR Sections 2700 – 2710)*. Examples of emission control strategies that may be verified include, but are not limited to, diesel particulate filters, diesel oxidation catalysts, fuel additives (e.g., fuel-borne catalysts), alternative fuels, and combinations of the above

- (d) **Requirements.** Any owner or operator of any Fuel Delivery Truck operating in total or in part within the State of California shall select and remain in either Track 1 or Track 2 outlined in the following:

(1) Track 1

- (A) By each Compliance Date specified in Table D-1, the owner or operator shall ensure that the specified Percentage of Fleet of Fuel Delivery Trucks, calculated in accordance with subsection (d)(1)(B), meets one or a combination of the following :
- (i) is equipped with a Level 3 VDECS,
  - (ii) has a verified engine that emits no greater than 0.01 g/bhp-hr PM, or
  - (iii) is manufactured in accordance with the 2007 federal engine standard.

Table D-1

Percentage of Fleet	Compliance Date
25	December 31, 2007
60	December 31, 2010
100	December 31, 2015

- (B) Calculating the Percentage of Fleet. The size of the owner's or operator's fleet shall be calculated on January 1 of each year and shall include all of the Fuel Delivery Trucks. The number of Fuel Delivery Trucks subject subsection (d)(1)(A) is calculated by multiplying the number of Fuel Delivery Trucks by the percentage for the corresponding Compliance Date. The number of Fuel Delivery Trucks shall be rounded up to the nearest whole number. For example, if the calculation results in a value of 3.2, the number is rounded up to 4. Therefore, the number of compliant Fuel Delivery Trucks required is 4.
- (C) Recordkeeping Requirements. The following records shall be maintained by each owner or operator, made available to the ARB upon request, and kept for the lifetime of the Fuel Delivery Truck at

the location where the truck normally resides. The recordkeeping requirements of subsection (d)(1)(C) do not apply when the truck no longer operates as a Fuel Delivery Truck.

- (i) List of fuel delivery trucks in the active fleet identified by truck type, engine manufacturer, and engine model year;
- (ii) The serial number, manufacturer, and installation date for all installed VDECS; and
- (iii) Service or maintenance dates on any VDECS.

(2) Track 2

- (A) By each Compliance Date specified in Table D-2, the owner or operator shall ensure that the fleet-wide Annual Emissions Summary for any Fuel Delivery Truck fleet shall not exceed the PM emission limitations determined by applying the Percentage of Year 2000 Emission Reduction values in Table D-2 using the Base Year Emissions Summary for emission year 2000 as the reference.

Table D-2

Percentage of Year 2000 Emission Reduction	Compliance Date
45	December 31, 2007
70	December 31, 2010
90	December 31, 2015

- (i) Commencing January 1, 2005, and continuing thereafter, each owner or operator shall maintain a fleet-wide Annual Emissions Summary record for each Fuel Delivery Truck used for any part of the year for commercial fuel delivery, as specified in subsection (d)(2)(B).
- (ii) On or before December 31, 2005, each Fuel Delivery Truck fleet must submit a Base Year Emissions Summary for emission year 2000 to the ARB. The summary shall include all information identified in subsection (d)(2)(C) and be calculated according to subsection (d)(2)(B).
- (iii) By January 31, 2008; January 31, 2011; and January 31, 2016; each Fuel Delivery Truck fleet shall submit an updated Annual Emissions Summary to the Executive Officer for the previous year as specified in subsection (d)(2)(C).

- (B) Calculating the Base Year Emissions Summary and the Annual Emissions Summary. Both the base year and annual emissions summaries shall be calculated using the following equation:

(i)  $TE = EF \times AM \times CF$

where,

TE = truck emissions for the purposes of determining the Base Year Emissions Summary and the Annual Emissions Summary.

EF = engine emission factor in grams per mile, provided by the ARB from EMFAC2002 v 2.2 and adjusted for the addition of emission controls or,  $EF = EF \times (1 - CE)$  where CE is the control efficiency. CE = 0 if there is no VDECS.

AM = total annual miles for the year based on the difference in odometer readings taken on January 1 and December 31 of the year of interest.

CF = conversion factor ( $1.1 \times 10^{-6}$ ) used to convert grams to tons.

- (ii) The TE for each Fuel Delivery Truck in the fleet is added to determine the fleet total emissions.

$$\text{Fleet total emissions} = \sum TE$$

- (C) Recordkeeping Requirements. The following records shall be maintained by each owner or operator, made available to the ARB upon request, and kept for the lifetime of the Fuel Delivery Truck at the location where the truck normally resides.

- (i) Owner or operator name, mailing address, and phone number;
- (ii) January 1 and December 31 odometer readings for the year;
- (iii) License plate number;
- (iv) Make, model, and year of each diesel-fueled engine;
- (v) A description of any VDECS;
- (vi) Identification of all Fuel Delivery Trucks designated as permanently out of service; and

- (vii) Service or maintenance dates on any installed VDECS per manufacturer specifications.
- (viii) Level 3 VDECS-equipped Fuel Delivery Trucks and Fuel Delivery Trucks that have a verified engine that emits no greater than 0.01 g/bhp-hr PM or is manufactured in accordance with the 2007 federal engine standard are exempt from the reporting requirements of subsection (d)(2)(C).
- (ix) The recordkeeping requirements of subsection (d)(2)(C) do not apply when the truck no longer operates as a Fuel Delivery Truck.

(3) Track Selection

- (A) On or before July 31, 2005, the owner or operator shall submit in writing to the Executive Officer confirmation whether the company will follow compliance Track 1 or Track 2 to be in compliance with this section.

(4) New Companies and Fuel Delivery Truck Fleet Expansion Requirements for Track 1 and Track 2

- (A) New companies, not including existing company mergers or name changes, coming into the fuel delivery business after the adoption date of this section are placed in Track 1 and will comply with the applicable requirements of Track 1.
- (B) New companies, not including existing company mergers or name changes, coming into the fuel delivery business after December 31, 2006, shall consist solely of Fuel Delivery Trucks that have:
  - (i) Level 3 VDECS-equipped engines;
  - (ii) a verified engine that emits no greater than 0.01 g/bhp-hr PM; or
  - (iii) is manufactured in accordance with the 2007 federal engine standard; or a combination thereof.
- (C) Fuel Delivery Truck Expansion. Any owner or operator adding additional Fuel Delivery Trucks, excluding replacement of an existing truck to his or her fleet must be:
  - (iv) Level 3 VDECS-equipped engines;

- (v) a verified engine that emits no greater than 0.01 g/bhp-hr PM; or
- (vi) is manufactured in accordance with the 2007 federal engine standard; or a combination thereof.

(5) Extension

- (A) An extension of the December 31, 2007, emissions reduction target of up to three (3) years may be issued by the Executive Officer to any fleet consisting of more than eight (8) Fuel Delivery Trucks that certifies with the Executive Officer that the entire fleet will consist solely of engines that do not exceed 0.01 g/bhp-hr PM by December 31, 2010. The application shall be signed and certified by a company officer.
- (e) **Engine Retirement Exemption.** If an owner determines that an engine is within one year of retirement from serving as a Fuel Delivery Truck, that Fuel Delivery Truck is exempt from this section, provided documentation of expected retirement date is kept in records and the engine is retired as of the stated expected retirement date. An owner may not roll the expected retirement date of a Fuel Delivery Truck into the future to avoid compliance.
- (f) **Penalties.** Any violations of this section may carry civil penalties as specified in state law and regulations, including, but not limited to, Health and Safety Code section 39674.

NOTE: Authority cited: sections 39600 and 39601, Health and Safety Code.  
Reference: sections 39002, 39003, 39658, 43000, 43013, 43018, 43101, 43102, 43104, and 43105.